

### **REMARKS**

Claim 1 and 3-18 are pending in this application. By this Amendment, Claim 1 is amended. Claims 9-18 remain withdrawn from consideration by the Examiner for being directed to non-elected subject matter. Applicants respectfully submit that no new matter is presented herein.

#### **Entry of Response is Proper**

Entry of this Amendment is proper under 37 C.F.R. §1.116 since the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issues requiring further search and/or consideration on the part of the Examiner since Claim 1 is slightly amended merely to clarify the features recited therein and which have been previously considered by the Examiner; (c) satisfy a requirement of form asserted in the previous Office Action; (d) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (e) place the application in better form for appeal, should an appeal be necessary. The Amendment is necessary and was not earlier presented because it is made in response to objections raised in the Final Rejection. Entry of the Amendment is thus respectfully requested.

#### **Claim Rejections – 35 U.S.C. § 103**

Claims 1, 5 and 7-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP 2002/305006 to Suenaga et al. (Suenaga). Claims 3-4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Suenaga in view of U.S. Pre-grant

Publication No. 2002/0182471 to Kralick. Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over Suenaga in view of U.S. Patent No. 6,316,139 to Uchida et al. (Uchida).

Applicants respectfully traverse the rejections for the following reasons.

In justifying the basis for maintaining the rejections of the claims from the prior Office Action, the instant Office Action mis-states the Applicants' main argument in traversing the rejection, which is that the applied art of record fails to disclose, teach or remotely suggest the structural features recited by Claim 1. For example, the instant Office Action summarizes the arguments submitted by the Applicants in the Response dated October 13, 2006 as being that the Examiner has mistaken the picture frame-shaped member of Suenaga with the sealing material. While the Examiner acknowledges that Suenaga does teach a picture frame-shaped member, such is not the teaching on which the Examiner is relying. Rather, the Examiner asserts reliance upon Suenaga teaching a sealing member located in the perimeter of passage holes, as taught in paragraph [105] and [106] of Suenaga.

Applicants respectfully submit that no portion of Suenaga discloses, teaches or otherwise remotely suggest that which is recited in Claim 1. Even though Applicants contend Claim 1 in the October 13 Response more than adequately recited distinguishing structural features, Applicants have further amended Claim 1 herein to more clearly recite the features that are not disclosed, taught or suggested by the applied art of record.

In particular, Applicants note that Claim 1 recites a seal-separator conjugation for a fuel cell which clamps a membrane electrode assembly sandwiching a polymer

electrode membrane, including seals on a front surface and a rear surface of the separator, wherein the seals are located at least at one end of the separator, wherein each seal is fitted to a corresponding neighboring seal formed on a neighboring membrane electrode assembly, *wherein the seal on the separator is a protrusion having a trapezoid cross-section and the neighboring seal is a recess having a shape corresponding to the protrusion, a top part of the protrusion being in a nested arrangement within the recess when the fuel cell is assembled*. See Figure 1 of the originally filed application and how the top portion of seal 12A is nested within the recess defined in seal 12B for an example of that which is recited by Claim 1.

Upon further review of Suenaga, Applicants maintain and again assert that Suenaga fails to disclose, teach or otherwise remotely suggest such a feature. In fact, a review of all figures and written disclosures contained in Suenaga fails to uncover a structural feature that is remotely similar to that which is recited by Claim 1. Applicants respectfully submit that not one of the embodiments disclosed by Suenaga discloses, teaches or suggests a seal on a separator being a protrusion having a trapezoid cross-section and a neighboring seal on a neighboring membrane electrode assembly being a recess having a shape corresponding to the protrusion, wherein a top part of the protrusion is in a nested arrangement within the recess when the fuel cell is assembled.

The structural configuration of the claimed invention ensures the fitting of two adjacent seals even when there is a deviation in the alignment of the components during assembly of the fuel cell, and thus the sealing property of the assembled fuel cell is improved.

On the other hand, Suenaga does not disclose or suggest the structural configuration of the claimed invention and also does not function like, derive the benefits of, and the effect of the claimed invention.

Applicants respectfully submit that in addition to not teaching or suggesting the claimed geometric configuration recited by Claim 1, Suenaga fails to disclose, teach or otherwise suggest a neighboring seal having a recess within which a protrusion nests. The drawings, i.e., 12 and 13, referenced in paragraphs [105] and [106] plainly and obviously do not illustrate such a structural configuration.

Further, Applicants respectfully submit that Suenaga fails to disclose, teach or otherwise suggest a seal being formed on a membrane electrode assembly, or a seal being brought into contact with the membrane electrode assembly. Claim 1 recites a seal having such features.

Additionally, Applicants respectfully submit that the structural configuration of the claimed invention, i.e., a protrusion having a trapezoid cross-section and a recess having a shaped corresponding to the protrusion, ensures that the adjacent seals fit properly even when there is a deviation in the alignment of the components during assembly of the fuel cell. See the attached sketches, which are provided to further the Examiner's understanding of the claimed invention. Therefore, the sealing property of the assembled fuel cell is improved over existing structural arrangements. Suenaga does not provide a sealing member from where such benefits flow.

As such, based on the above discussed differences, Applicants respectfully submit that Suenaga does not disclose or suggest each and every feature recited by Claim 1.

Kralick is applied for teaching using different gasket materials. Kralick does not overcome or otherwise address the above-noted deficiency of Suenaga.

Uchida is applied for teaching the use of an adhesive layer to attach a gasket to a separator. Uchida does not overcome or otherwise address the above-noted deficiency of Suenaga.

To establish *prima facie* obviousness, the applied art of record must teach or suggest each and every feature of a rejected claim. See M.P.E.P. §2143.03.

As noted above, Suenaga, Kralick and Uchida, alone or in any combination thereof, fail to teach or suggest each and every feature of Claim 1. Therefore, Applicants respectfully submit the Claim 1 is not rendered obvious by any one or combination of Suenaga, Kralick and Uchida, and should be deemed allowable.

Claims 3-8 depend from Claim 1.

It is respectfully submitted that these dependent claims be deemed allowable for at least the same reasons Claim 1 is allowable as well as for the additional subject matter recited therein.

Applicants respectfully request withdrawal of the rejections.

### **Conclusion**

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding rejections, allowance of Claims 1 and 3-8, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 106145.00074.**

Respectfully submitted,  
**ARENT FOX LLP**

A handwritten signature in black ink, appearing to read 'Murat Ozgu', is positioned above the printed name.

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Enclosures: Sketches (1 sheet)